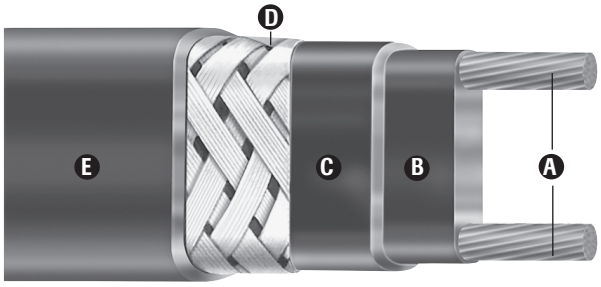
SRL
Self-Regulating Low Temperature

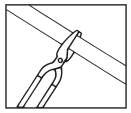
- **Self-Regulating, Energy Efficient**
- **16 AWG Buss Wire**
- **Circuit Lengths to 660 Feet**
- **Process Temperature Maintenance to 150°F (65°C)**
- **Maximum Continuous Exposure Temperature, Power Off, 185°F (85°C)**
- **Industrial Freeze Protection Applications**
- **Freeze Protection of Fire Protection System Piping**
- **Field Splicing Without Disrupting Heat Output**
- **3, 5, 8 and 10 W/Ft.**
- **120 and 208 - 277 Volt From Stock**
- **Approximate Size 3/8”W x 1/8"H**
- **Min. Bend Radius 1-1/8"**
- **For Use on Metal and Plastic Pipes**

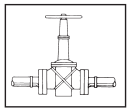
Description

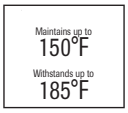
Chromalox SRL self-regulating heating cable provides safe, reliable heat tracing for freeze protection of pipes, valves, tanks and similar applications. Constructed of industrial grade 16 AWG buss wire with a tinned copper braid and optional overjacketing, SRL ensures operating integrity in Div. 2 hazardous environments as well as certain corrosive industrial environments. SRL heating cable has a maximum maintenance temperature rating of 150°F (65°C).

WARNING — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30mA is recommended to minimize nuisance tripping.

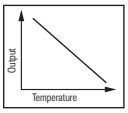



Cut to Length in Field


Can be Single Overlapped



Low Temperature



Self Regulating Output

Features

- Energy efficient, self-regulating SRL uses less energy when less heat is required.
- Easy to install, SRL can be cut to any length (up to max. circuit length) in the field.
- Field splices can be performed easily in minutes with no scrap or wasted cold sections.
- SRL features lower installed cost than steam tracing, less maintenance expense and less downtime.
- SRL can be overlapped without burnout, which simplifies heat tracing of in-line process equipment such as valves, elbows and pumps.
- Because SRL is self-regulating, over-temperature conditions are minimized.
- Chromalox termination, splice, tee and end seal kits reduce installation time.

Construction

A **Twin 16 AWG Copper Buss Wires —** Provide reliable electrical current capability.

B **Semiconductive Polymer Core Matrix —** “Self-Regulating” component of the cable, its electrical resistance varies with temperature. As process temperature drops, the core’s heat output increases; as process temperature rises, the heat output decreases.

C **Polyolefin Jacket —** Flame retardant, electrically insulates the matrix and buss wires and provides resistance to water and some inorganic chemical solutions.

D **Tinned Copper Braid —** Provides additional mechanical protection in any environment and a positive ground path.

E **High Temperature Fluoropolymer or TPR Overjacket (optional) —** Corrosion resistant, flame retardant overjacket is highly effective in many environments. TPR coatings protect against certain inorganic chemical solutions. Fluoropolymer coatings are used for exposure to organic or corrosive solutions. These coatings also protect against abrasion and impact damage.

Approvals

ATEX and IECEX Exe IIGb, Factory Mutual (FM) Approved for ordinary areas. UL Listed, CSA Certified for ordinary areas. UL listed for freeze protection of fire protection system piping. FM Approved for hazardous (classified) areas when used with U Series, DL and EL accessories:

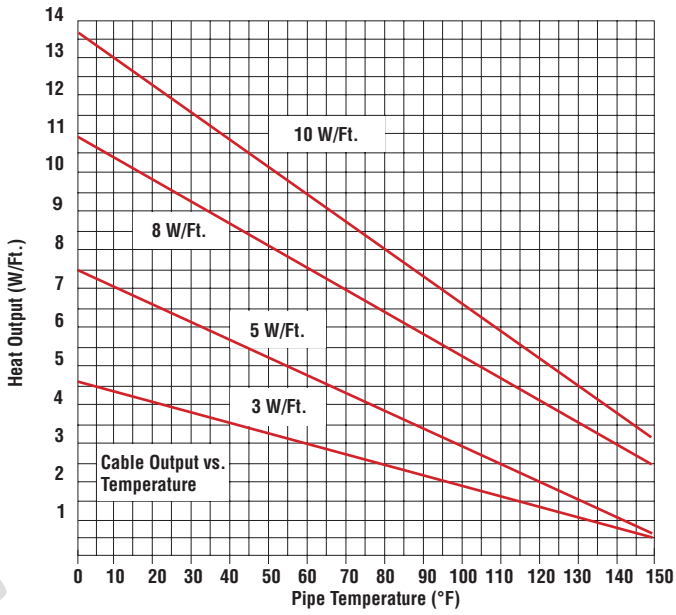
- Class I, Div. 2, Groups B, C, D (gases, vapors)
- Class II, Div. 2, Groups F, G (combustible dust)
- Class III, Div. 2 (easily ignitable fibers and fillings)
- 3 Watt Rated T6 Temperature Class
- 5 and 8 Watt Rated T5 Temperature Class
- 10 Watt Rated T4A Temperature Class.

CSA Certified for hazardous areas when used with DL, EL or U Series accessories:

- Class I, Div. 2, Groups A, B, C, D
- Class II, Div. 2, Groups F, G.
- ATEX and IECEX Exe IIGb
- Ex IIG Exe II

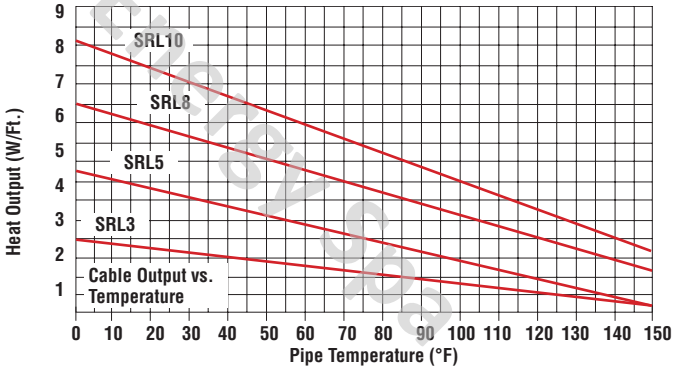
SRL
Self-Regulating Low Temperature *(cont'd.)*

Thermal Output Ratings on Insulated Metal Pipe[1]



Note 1 — Thermal output is determined per IEEE 515-2004 Standard for testing, design installation, and maintenance of electrical resistance heat tracing section 4.1.11 Method C.

Thermal Output Ratings on Plastic Pipe with Aluminum Tape



Output Wattage at Alternate Voltages (W/Ft.)

Model	208V	% Change In Output	220V	% Change In Output	277V	% Change In Output
SRL 3	2.4	-20	2.6	-13	3.4	+15
SRL 5	4.1	-18	4.5	-10	5.6	+13
SRL 8	6.88	-14	7.28	-9	8.96	+12
SRL 10	8.7	-13	9.2	-8	11.1	+10

Circuit Breaker Selection (Max. Circuit Lengths in Ft.)

Cable Rating	50°F Start-Up (Ft.)						0°F Start-Up (Ft.)						-20°F Start-Up (Ft.)					
	10A	15A	20A	25A	30A	40A	10A	15A	20A	25A	30A	40A	10A	15A	20A	25A	30A	40A
SRL3-1C	205	305	360	NR	NR	NR	135	200	270	330	360	NR	120	185	245	300	360	NR
SRL3-2C	400	600	660	NR	NR	NR	275	415	555	660	NR	NR	245	370	495	600	660	NR
SRL5-1C	125	185	250	270	NR	NR	90	135	180	225	270	NR	80	120	160	205	245	270
SRL5-2C	250	375	505	540	NR	NR	180	270	360	450	540	NR	160	245	325	405	490	540
SRL8-1C	100	150	200	215	NR	NR	70	110	145	180	215	NR	65	100	130	165	200	210
SRL8-2C	185	285	375	420	NR	NR	135	200	265	335	395	420	120	175	235	300	350	420
SRL10-1C	60	95	130	160	180	NR	50	80	105	130	155	180	45	70	95	120	140	180
SRL10-2C	100	160	210	260	315	360	80	125	170	210	255	340	75	120	160	195	240	320

NR = Not Required. Maximum circuit length has been reached in a smaller breaker size.

Note — Thermal magnetic circuit breakers are recommended since magnetic circuit breakers could "nuisance trip" at low temperature.

SRL
Self-Regulating Low Temperature *(cont'd.)*

Ordering Information

Output (W/Ft.)	Volts	Model	Stock	PCN	Wt./1000' (Lbs.)
3 @ 50°F	120	**SRL 3-1C**	**S**	**382678**	53
		SRL 3-1CT	**S**	**383400**	66
		SRL 3-1CR	**S**	**382731**	64
	208 - 277	**SRL 3-2C**	**S**	**382686**	53
		SRL 3-2CT	**S**	**383419**	66
		SRL 3-2CR	**S**	**382740**	64
5 @ 50°F	120	**SRL 5-1C**	**S**	**382694**	53
		SRL 5-1CT	**S**	**383443**	66
		SRL 5-1CR	**S**	**382758**	64
	208 - 277	**SRL 5-2C**	**S**	**382707**	53
		SRL 5-2CT	**S**	**383451**	66
		SRL 5-2CR	**S**	**382766**	64
8 @ 50°F	120	**SRL 8-1C**	**S**	**382555**	53
		SRL 8-1CT	**S**	**383460**	66
		SRL 8-1CR	**S**	**382598**	64
	208 - 277	**SRL 8-2C**	**S**	**382563**	53
		SRL 8-2CT	**S**	**383478**	66
		SRL 8-2CR	**S**	**382600**	64
10 @ 50°F	120	**SRL 10-1C**	**S**	**382820**	53
		SRL 10-1CT	**S**	**383486**	66
		SRL 10-1CR	**S**	**382846**	64
	208 - 277	**SRL 10-2C**	**S**	**382838**	53
		SRL 10-2CT	**S**	**383494**	66
		SRL 10-2CR	**S**	**382854**	64

To Order — Specify length, model, PCN and installation accessories.

Accessories

Accessories		U Series	DL	EL
Power Connection	Heat trace to electrical service connection	UPC	RTPC	SSK
Splice & Tee		UMC	RTST	RT-RST
End Seal	For terminating cable	UES	RTES	RT-RES
Lighted End Seal		USL	RTST-SL	N/A
Thermostat	Ambient air sensing thermostat	UAS	RTAS	THL/TXL
	Line sensing mechanical thermostat	UBC	RTBC	THR/TXR

To Order — General Application & Installation Accessories such as tape, pipe straps, warning labels, etc., refer to the U Series, DL & EL General Application Accessories page at the end of this section.

Ordering Information

To Order — *Complete the Model Number using the Matrix provided.*

Contact your Local Chromalox Sales office for monitor wire option.

Model	Self-Regulating Low Temperature			
SRL	Self-Regulating, Low Temperatue Heating Cable			
	Code	**Output (W/Ft.)**		
	3	Three		
	5	Five		
	8	Eight		
	10	Ten		
		Code	**Voltage**	
		1	120	
		2	208 - 277	
			Code	**Braid and Overcoat Options**
			C	Tin-Plated copper metallic braid for additional protection and ground path
			CT	Fluoropolymer corrosion resistant overjacket over braid for hostile/corrosive environments
			CR	TPR overjacket over braid for protection against certain inorganic chemical solutions
SRL	**5**	**1**	**C**	**Typical Model Number**

More Information is Available Online on Heat Trace.

Bookmark Your Browser to ***www.chromalox.com*** *and Select* ***Manuals****.*